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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/010,212	12/04/2001	Jeong S. Lee	ACSC 60308 (2864)	7883

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EXAMINER

DESANTO, MATTHEW F

ART UNIT	PAPER NUMBER
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3763

DATE MAILED: 01/15/2003

Please find below and/or attached an Office communication concerning this application or proceeding.

# Office Action Summary

Application No.

10/010,212

Applicant(s)

LEE ET AL.

Examiner

Matthew F DeSanto

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

## Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

## Status

- 1) ☒ Responsive to communication(s) filed on 04 December 2001.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

## Disposition of Claims

- 4) ☒ Claim(s) 1-39 is/are pending in the application.
- 4a) Of the above claim(s) 6-8, 10-15, 20, 22, 34 and 36 is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-5, 9, 16, 23-33 and 37-39 is/are rejected.
- 7) ☒ Claim(s) 17-19 and 21 is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

## Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on \_\_\_\_\_ is: a) ☐ approved b) ☐ disapproved by the Examiner.
- If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

## Priority under 35 U.S.C. §§ 119 and 120

- 13) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
- a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

## Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449) Paper No(s) 2.
- 4) ☐ Interview Summary (PTO-413) Paper No(s). \_\_\_\_\_.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: \_\_\_\_\_.

## DETAILED ACTION

### *Election/Restrictions*

1. Applicant's election without traverse of Invention I, Species B (Figures 4-7) in Paper No. 6 is acknowledged.
2. Claims 12-15, 20, 22 and 36 are withdrawn from further consideration pursuant to 37 CFR 1.142(b) as being drawn to a nonelected Invention and Species, there being no allowable generic or linking claim. Election was made **without** traverse in Paper No. 6.
3. The examiner further withdraws claims 6, 7, 8, 10, 11, and 34 from further consideration pursuant to 37 CFR 1.142(b) as being drawn to a nonelected Invention and Species, there being no allowable generic or linking claim. Claims 6, 7, are drawn to multi-layered inner tubular member, claims 8, 34 are drawn to a multi-layered reinforcing tube, and claims 10, 11 are drawn to the proximal tubular member comprising a first tube and a second tube.

### *Claim Rejections –*

#### **35 USC § 102 or 35 USC § 103**

4. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

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5. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

6. Claims 1, 5, 9, 23, 24, 25, 26, 27, 28, and 29 are rejected under 35 U.S.C. 102(b) as anticipated by or, in the alternative, under 35 U.S.C. 103(a) as obvious over Verbeek (USPN 5690613).

Verbeek discloses a balloon (35) catheter with an elongated shaft having an inflation lumen, a guide-wire receiving lumen, a proximal shaft section comprising a proximal tubular member (50) with a mandrel (30), a distal shaft section comprising an outer tubular member (80), and an inner tubular member (70) and a reinforcing member (13) formed of a first polymeric material having a glass transition temperature greater than the glass transition temperature of a second polymeric material forming the distal portion of the proximal tubular member. (Figures 1A, 1B, 1C, and entire reference).

According to Etherington & Roberts dictionary, Verbeek inherently teaches that the first polymeric material has a higher glass transition temperature than the second polymeric material due to the fact that the first polymeric material is used as a reinforcing structure and would be less flexible to provide support when maneuvering the catheter throughout the body.

7. Claims 1, 16, 25, 27, 28, 29 are rejected under 35 U.S.C. 102(b) as anticipated by or, in the alternative, under 35 U.S.C. 103(a) as obvious over Wantink (5300025).

Wantink discloses a balloon (25) catheter with an elongated shaft having an inflation lumen, a guide-wire receiving lumen, a proximal shaft section comprising a proximal tubular member (26), a distal shaft section comprising an outer tubular member (13), and an inner tubular member (16) and a reinforcing member (28) formed of a first polymeric material having a glass transition temperature greater than the glass transition temperature of a second polymeric material forming the distal portion of the proximal tubular member. (Figures 1 – 5, and entire reference).

According to Etherington & Roberts dictionary, Wantink inherently teaches that the first polymeric material has a higher glass transition temperature than the second polymeric material due to the fact that the first polymeric material is used as a reinforcing structure and would be less flexible to provide support when maneuvering the catheter throughout the body.

8. Claims 1 - 5, 9, 23 - 33, 35 and 37-39 are rejected under 35 U.S.C. 103(a) as being unpatentable over Verbeek as applied to claims 1, 5, 9, 23, 24, 25, 26, 27, 28, and 29 above, and further in view of Samson et al. (USPN 5782811).

Verbeek disclosed the claimed invention except for using a thermoset polyimide.

Samson et al. discloses the use of a thermoset polyimide with a reinforcing structure in a catheter because of the chemical property, which would give the catheter enough flexible, and strength to maneuver the catheter through the body. (Fig 9, and Column 12, lines 37-62 and entire reference)

At the time of the invention, it would have been obvious for one of ordinary skill in the art to substitute a thermoset polyimide as the reinforcing polymer because Samson

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et al. taught the usefulness of thermoset polyimide due to the chemical property and high flexural moduli, which allows for flexibility and stiffness which is beneficial in a material that is going to be used in a catheter.

Therefore, it would have been obvious to combine Verbeek with Samson et al. to obtain the invention as specified in claims 1 - 5, 9, 23 - 33, 35 and 37-39.

***Allowable Subject Matter***

9. Claims 17, 18, 19 and 21 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.


***Conclusion***

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Matthew F DeSanto whose telephone number is 1-703-305-3292. The examiner can normally be reached on Monday-Friday 8:30-6:00.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is 1-703-308-0858.



Matthew DeSanto  
Art Unit 3763  
January 9, 2003



ANH TUAN T. NGUYEN  
PRIMARY EXAMINER

1/10/03